

### Claims

1. A foam comprising at least one adhesive material applied in a strip to a surface of the freshly extruded foam, characterized in that the strip of adhesive material is divided into several tracks, a first set of these tracks comprising the adhesive material and a second set of these tracks not comprising adhesive material, in that the tracks comprising the adhesive material and the tracks not comprising adhesive material are disposed alternately on the surface of the foam, and in that the surface in contact with the adhesive material is free from irregularities after the foam has been degassed.
2. The foam of claim 1, wherein the adhesive material is a self-adhesive hot-melt glue.
3. The foam of one of the preceding claims, wherein the tracks are continuous or discontinuous.
4. The foam of one of the preceding claims, wherein the tracks are straight, wavy or zigzag.
5. The foam of one of the preceding claims, wherein the tracks are parallel.
6. The foam of one of the preceding claims, wherein the ratio between the surface areas of the tracks comprising the adhesive material and the surface areas of the tracks not comprising adhesive material is situated between 0.2 and 5, preferably between 0.5 and 2.
7. The foam of one of the preceding claims, wherein the tracks have a width of between 0.5 and 15 mm, preferably between 2 and 8 mm.
8. The foam of one of the preceding claims, wherein the strip of adhesive material comprises between 3 and 15 tracks.
9. The foam of one of the preceding claims, wherein the strip of adhesive material is covered with a release paper.

10. The foam of one of the preceding claims, wherein the foam is a polymer foam selected from the group comprising polyolefins, metallocenes, polystyrenes, copolymers thereof, and mixtures thereof.
- 5 11. A process for producing a foam, comprising the steps of:
- producing foam by extrusion,
  - applying, to a surface of the freshly extruded foam, an adhesive material in a strip, the strip of adhesive material being divided into several tracks, a first set of these tracks comprising the adhesive material and a second set of these tracks not comprising adhesive material, the tracks comprising the adhesive material and the tracks not comprising adhesive material being disposed alternately on the surface of the foam,
  - degassing the foam, to give a foam comprising a surface in contact with the adhesive material that is free from irregularities after degassing.
- 10 12. The process of claim 11, wherein the adhesive material is a self-adhesive hot-melt glue, the adhesive material being melted in a melting vessel and pumped through an injection nozzle for laying down the adhesive material in a strip on the freshly extruded foam.
- 15 13. The process of claim 11, wherein the adhesive material is laid down in a strip on a release paper which is subsequently applied to the surface of the foam.
- 20 14. The process of claim 11, wherein the adhesive material is laid down in a strip continuously on a rotating transfer roller which is in contact with the surface of the foam.
- 25 15. The process of any one of claims 11 to 14, wherein a gas, preferably nitrogen, is injected into the adhesive material.
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